



5. SiGen is the owner by assignment of U.S. Patent Nos. 5,985,742 (“the ‘742 Patent”) [Ex. A], 6,013,563 (“the ‘563 Patent”) [Ex. B], 6,103,599 (“the ‘599 Patent”) [Ex. C], 6,162,705 (“the ‘705 Patent”) [Ex. D], 6,180,496 (“the ‘496 Patent”) [Ex. E]; 6,294,814 (“the ‘814 Patent”) [Ex. F], 6,790,747 (“the ‘747 Patent”) [Ex. G], and 7,811,901 (“the ‘901 Patent”) [Ex. H] (collectively, “Patents-in-Suit”).

6. The Patents-in-Suit generally relate to processes to manufacture semiconductors for use in electronic devices. For example, the Patents-in-Suit are generally directed to “a method and device for cleaving a substrate in the fabrication of a silicon-on-insulator substrate for semiconductor integrated circuits.” *See, e.g.*, ‘563 Patent, col. 1, lines 13-16.

7. A solution claimed in the Patents-in-Suit is designed to solve for the “rough” techniques used to cut semiconductor substrate material that were unable to “be used with great precision in fabrication of small and delicate” electronic devices. *See, e.g., id.*, col. 1, line 66 – col. 2, line 5.

8. Representative claim 1 of the ‘563 Patent reads:

A process for forming a film of material from a substrate, said process comprising steps of:

introducing particles through a surface of a substrate to a selected depth underneath said surface, said particles being at a concentration at said selected depth to define a substrate material to be removed above said selected depth; and

providing energy to a selected region of said substrate to initiate a controlled cleaving action at said selected depth in said substrate, whereupon said cleaving action is made using a propagating cleave front to free a portion of said material to be removed from said substrate.

#### **THE DEFENDANT AND THE ACCUSED PRODUCTS**

9. GLOBALFOUNDRIES is a Delaware Corporation with a principal place of business at 2600 Great America Way, Santa Clara, California 95054.

10. On July 1, 2015, GLOBALFOUNDRIES completed its acquisition of IBM’s

Microelectronics Division, including silicon wafer manufacturing facilities located in Burlington, Vermont.

11. GLOBALFOUNDRIES uses silicon-on-insulator ("SOI") wafers manufactured using SmartCut® technology by Soitec S.A. ("Soitec") in Bernin, France, and imported into the United States by GLOBALFOUNDRIES, in the manufacture of many types of integrated circuit products at, *inter alia*, GLOBALFOUNDRIES' Burlington, Vermont facility.

12. SiGen has accused Soitec's SOI wafers manufactured using SmartCut® technology of infringing the Patents-in-Suit in an investigation filed with the United States International Trade Commission, styled *Certain Silicon-on-Insulator Wafers*, 337-TA-966.

#### **JURISDICTION AND VENUE**

13. This Court has subject matter jurisdiction in this matter pursuant to 28 U.S.C. § 1338(a).

14. Venue is proper in this Judicial District pursuant to 28 U.S.C. § 1400(b).

15. This Court has personal jurisdiction over GLOBALFOUNDRIES by virtue of GLOBALFOUNDRIES' continuing business operations in this Judicial District, and by virtue of GLOBALFOUNDRIES' continued infringement of the Patents-in-Suit in this Judicial District.

#### **Count I – Infringement of the '742 Patent**

16. SiGen hereby incorporates by reference paragraphs 1-15.

17. GLOBALFOUNDRIES' importation of SOI wafers manufactured by Soitec using SmartCut® technology infringes the claims of the '742 patent.

18. SiGen is injured by GLOBALFOUNDRIES' importation of SOI wafers manufactured by Soitec using SmartCut® technology that infringe the claims of the '742 patent.

#### **Count II – Infringement of the '563 Patent**

19. SiGen hereby incorporates by reference paragraphs 1-18.

20. GLOBALFOUNDRIES' importation of SOI wafers manufactured by Soitec using SmartCut® technology infringes the claims of the '563 patent.

21. SiGen is injured by GLOBALFOUNDRIES' importation of SOI wafers manufactured by Soitec using SmartCut® technology that infringe the claims of the '563 patent.

**Count III – Infringement of the '599 Patent**

22. SiGen hereby incorporates by reference paragraphs 1-21.

23. GLOBALFOUNDRIES' importation of SOI wafers manufactured by Soitec using SmartCut® technology infringes the claims of the '599 patent.

24. SiGen is injured by GLOBALFOUNDRIES' importation of SOI wafers manufactured by Soitec using SmartCut® technology that infringe the claims of the '599 patent.

**Count IV – Infringement of the '705 Patent**

25. SiGen hereby incorporates by reference paragraphs 1-24.

26. GLOBALFOUNDRIES' importation of SOI wafers manufactured by Soitec using SmartCut® technology infringes the claims of the '705 patent.

27. SiGen is injured by GLOBALFOUNDRIES' importation of SOI wafers manufactured by Soitec using SmartCut® technology that infringe the claims of the '705 patent.

**Count V – Infringement of the '496 Patent**

28. SiGen hereby incorporates by reference paragraphs 1-27.

29. GLOBALFOUNDRIES' importation of SOI wafers manufactured by Soitec using SmartCut® technology infringes the claims of the '496 patent.

30. SiGen is injured by GLOBALFOUNDRIES' importation of SOI wafers manufactured by Soitec using SmartCut® technology that infringe the claims of the '496 patent.

**Count VI – Infringement of the ‘814 Patent**

31. SiGen hereby incorporates by reference paragraphs 1-30.
32. GLOBALFOUNDRIES’ importation of SOI wafers manufactured by Soitec using SmartCut® technology infringes the claims of the ‘814 patent.
33. GLOBALFOUNDRIES’ use and sale of SOI wafers manufactured by Soitec using SmartCut® technology infringes the claims of the ‘814 patent.
34. SiGen is injured by GLOBALFOUNDRIES’ importation of SOI wafers manufactured by Soitec using SmartCut® technology that infringe the claims of the ‘814 patent.

**Count VII – Infringement of the ‘747 Patent**

35. SiGen hereby incorporates by reference paragraphs 1-34.
36. GLOBALFOUNDRIES’ importation of SOI wafers manufactured by Soitec using SmartCut® technology infringes the claims of the ‘747 patent.
37. SiGen is injured by GLOBALFOUNDRIES’ importation of SOI wafers manufactured by Soitec using SmartCut® technology that infringe the claims of the ‘747 patent.

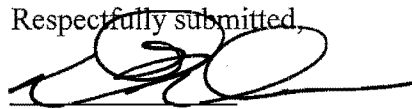
**Count VIII – Infringement of the ‘901 Patent**

38. SiGen hereby incorporates by reference paragraphs 1-37.
39. GLOBALFOUNDRIES’ importation of SOI wafers manufactured by Soitec using SmartCut® technology infringes the claims of the ‘901 patent.
40. SiGen is injured by GLOBALFOUNDRIES’ importation of SOI wafers manufactured by Soitec using SmartCut® technology that infringe the claims of the ‘901 patent.

WHEREFORE, SiGen respectfully requests that this Court award SiGen damages adequate to compensate it for GLOBALFOUNDRIES’ infringement of the patents in suit, and such further relief as the Court deems appropriate.

Date: November 10, 2015

Respectfully submitted,



David N. Dunn  
Phillips, Dunn, Shriver & Carroll  
147 Western Avenue  
Brattleboro, Vermont 05301  
(802) 257-7244  
[ddunn@pdsclaw.com](mailto:ddunn@pdsclaw.com)

ATTORNEY FOR PLAINTIFF  
SILICON GENESIS CORPORATION

OF COUNSEL:

Rolf O. Stadheim  
George C. Summerfield  
Christopher St. Peter  
STADHEIM & GREAR  
400 North Michigan Avenue  
Suite 2200  
Chicago, Illinois 60611  
(312) 755-4400  
[Stadheim@stadheimgear.com](mailto:Stadheim@stadheimgear.com)  
[summerfield@stadheimgear.com](mailto:summerfield@stadheimgear.com)  
[stpeter@stadheimgear.com](mailto:stpeter@stadheimgear.com)